



LABORATORY REPORT

Prepared For: Burns & McDonnell Project: QAS-Marsh Ave 65289

9400 Ward Parkway Kansas City, MO 64114

Attention: Diana Marquez Sampled: 09/15/12

Received: 09/18/12 Issued: 09/25/12 13:40

NELAP #01109CA / AZ100001 California ELAP#2446 Arizona DHS#AZ0728 Nevada #AZ01030 ORELAP #AZ100001

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

LABORATORY ID	CLIENT ID	MATRIX
PVI1186-01	TP127W01/16-21	Water
PVI1186-02	DP127W02/28-32	Water
PVI1186-03	TP128W04/49.3-54.3	Water
PVI1186-04	TP126W02/36.7-467	Water

SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica

Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

ADDITIONAL

INFORMATION: N1 - 8270-1,4-Dioxane - PVI1186-04 - Concentration exceeds the calibration range and therefore result is

semi-quantitative. Analysis is an Isotope dilution which can only be diluted at the point of extraction and

not after. There was only 1 bottle provided, unable to reextract.

Reviewed By:

TestAmerica Phoenix

Linda Eshelman Project Manager



THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602)

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1,4-DIOXANE BY GC/MS (EPA 3520C/8270C MOD)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PVI1186-01 (TP127W01/16-21 -	Water)							
Reporting Units: ug/l 1,4-Dioxane Surrogate: 1,4-Dioxane-d8 (14-125%) Surrogate: Nitrobenzene-d5 (27-143%)	EPA 8270C	12I0770	1.0	ND 77 % 80 %	1.05	9/20/2012	9/22/2012	
Sample ID: PVI1186-02 (DP127W02/28-32 -	Water)							
Reporting Units: ug/l 1,4-Dioxane Surrogate: 1,4-Dioxane-d8 (14-125%) Surrogate: Nitrobenzene-d5 (27-143%)	EPA 8270C	12I0770	1.0	19 79 % 74 %	1	9/20/2012	9/22/2012	
Sample ID: PVI1186-03 (TP128W04/49.3-54	.3 - Water)							
Reporting Units: ug/l 1,4-Dioxane Surrogate: 1,4-Dioxane-d8 (14-125%) Surrogate: Nitrobenzene-d5 (27-143%)	EPA 8270C	12I0770	1.2	8.6 69 % 72 %	1.25	9/20/2012	9/22/2012	
Sample ID: PVI1186-04 (TP126W02/36.7-46	57 - Water)							
Reporting Units: ug/l 1,4-Dioxane Surrogate: 1,4-Dioxane-d8 (14-125%) Surrogate: Nitrobenzene-d5 (27-143%)	EPA 8270C	12I0770	1.2	760 66 % 64 %	1.22	9/20/2012	9/22/2012	N1



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METHOD BLANK/QC DATA

1,4-DIOXANE BY GC/MS (EPA 3520C/8270C MOD)

		Reporting		Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 12I0770 Extracted: 09/20/12										
Blank Analyzed: 09/21/2012 (12I0770-BI	LK1)									
1,4-Dioxane	ND	1.0	ug/l							
Surrogate: 1,4-Dioxane-d8	15.6		ug/l	20.0		78	14-125			
Surrogate: Nitrobenzene-d5	14.9		ug/l	20.0		75	27-143			
LCS Analyzed: 09/21/2012 (12I0770-BS1	.)									
1,4-Dioxane	19.8	1.0	ug/l	20.0		99	85-116			
Surrogate: 1,4-Dioxane-d8	14.6		ug/l	20.0		73	23-132			
Surrogate: Nitrobenzene-d5	14.6		ug/l	20.0		73	28-150			
LCS Dup Analyzed: 09/21/2012 (12I0770	-BSD1)									
1,4-Dioxane	19.6	1.0	ug/l	20.0		98	85-116	0.9	20	
Surrogate: 1,4-Dioxane-d8	15.4		ug/l	20.0		77	23-132			
Surrogate: Nitrobenzene-d5	15.6		ug/l	20.0		78	28-150			
Matrix Spike Analyzed: 09/21/2012 (1210	0770-MS1)				Source: P	V10984-0	3			
1,4-Dioxane	20.6	1.0	ug/l	21.3	ND	97	65-138			
Surrogate: 1,4-Dioxane-d8	16.4		ug/l	21.3		77	14-125			
Surrogate: Nitrobenzene-d5	16.4		ug/l	21.3		77	27-143			
Matrix Spike Dup Analyzed: 09/21/2012	(12I0770-MS	SD1)			Source: P	V10984-0	3			
1,4-Dioxane	20.4	1.0	ug/l	21.3	ND	96	65-138	0.7	20	
Surrogate: 1,4-Dioxane-d8	16.8		ug/l	21.3		79	14-125			
Surrogate: Nitrobenzene-d5	16.7		ug/l	21.3		78	27-143			

TestAmerica Phoenix



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DATA QUALIFIERS AND DEFINITIONS

N1 See case narrative.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica

CHAIN OF CUSTODY FORM

[] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303 THE LEADER IN ENVIRONMENTA

L TESTING	[] Tucson - 1870 W. Prince Road, Strite 59, Tucson, AZ 85705 (520) 807-380 [] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 42	

TAL-0013-550 (10/10)				[] Las	vegas - 000	io o casiei	II Ave., Suite Si	, Las ve	gas, IV	03113 (102) 420				٢	age or	
Client Name/Addres	ss:			Projec	t/PO Numb	er:						Analy	sis Requi	ired			
Burns and Me 9400 Ward par Kansas City Project Manager Brach - Diana I TA Linda Es Sampler: da Es	kvag Mo 64114 Marquez			G) Phone	- MACSh 589 Number: 16-677 umber:			Dioxane									
Lewis Turn	•				16-82	2-3463		'									
Sample D		Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	-								Special Instructions	
TP177 WOI	116-21	WT	12 Amb	ょ	9/15/12	1317	Ice to 4'C	Х			0)		<u> </u>			· · · · · · · · · · · · · · · · · · ·	
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TP 126 wod	/36.7 - 467	wT	12 Amb	1	9/15/12	1635	₹q +> 4'c	*			24				ļ	Limite Volume (12)	
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Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.